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Jackson et al.

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(54) **PRY BAR ASSEMBLY**

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(51) **Int. Cl.**

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B25G 3/24	(2006.01)
B25C 11/00	(2006.01)
B66F 15/00	(2006.01)

(52) **U.S. Cl.**

CPC ***B66F 15/00*** (2013.01); ***B25C 11/00*** (2013.01); ***B25G 1/04*** (2013.01); ***B25G 3/24*** (2013.01); *Y10T 16/4719* (2015.01)

(58) **Field of Classification Search**

CPC B25C 11/00; B66F 15/00; E04G 23/08; E04G 2023/085; Y10T 16/469; Y10T 16/4713; Y10T 16/4719; Y10T 16/473; Y10T 16/509

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,329,436	A *	2/1920	Smiley	B66F 15/00 254/38
1,782,506	A *	11/1930	Henderson	B25C 11/00 254/27
1,826,110	A *	10/1931	Wickman	B66F 15/00 254/131
2,395,245	A *	2/1946	Booharin	B25G 3/38 15/144.2
2,565,466	A *	8/1951	Barker	A01B 1/222 294/57
3,076,263	A *	2/1963	Musto	B26B 5/005 16/429
3,467,405	A	9/1969	Fogg	
4,314,771	A *	2/1982	Lambert	F16B 7/0426 16/429
5,447,289	A *	9/1995	Callahan	B25C 11/00 254/131
6,354,570	B1 *	3/2002	Christensen	B66F 15/00 254/131
6,786,472	B1	9/2004	Dahl	
6,945,334	B2 *	9/2005	Grenner	A01B 1/16 172/378
2003/0208883	A1 *	11/2003	Ruhland	B25G 1/04 16/422
2005/0046131	A1	3/2005	Gunderson	
2005/0120831	A1	6/2005	Parker et al.	
2008/0191181	A1 *	8/2008	Verbowski	B25G 1/10 254/25
2010/0044657	A1 *	2/2010	Patrick	B66F 15/00 254/130
2013/0125712	A1	5/2013	Yadlowsky et al.	

FOREIGN PATENT DOCUMENTS

WO	WO2004000715	12/2003

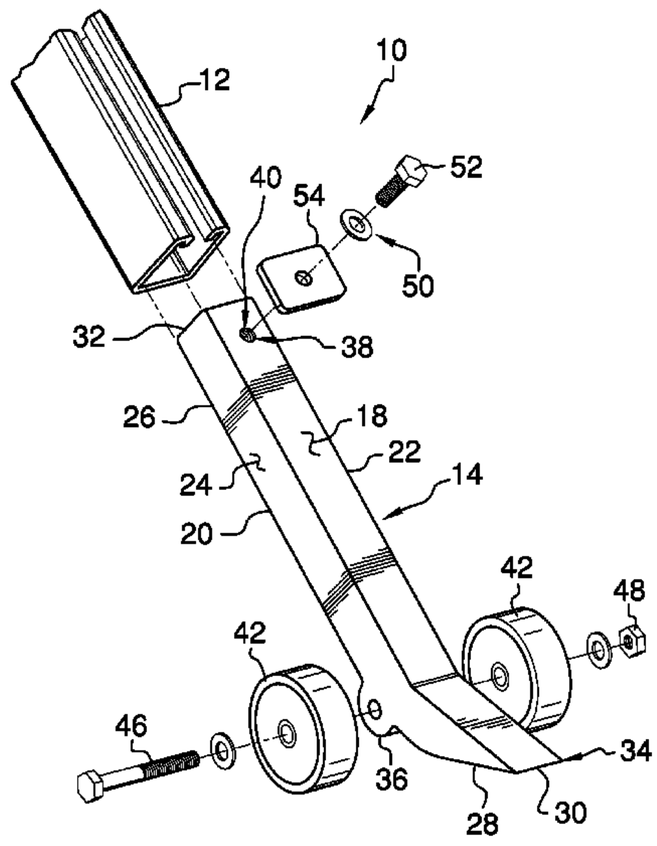
* cited by examiner

Primary Examiner — Tyrone V Hall, Jr.

(57) **ABSTRACT**

A pry bar assembly that has a removable handle includes a handle that may be manipulated. A prying unit is provided and the prying unit is removably coupled to the handle. The prying unit may engage an object thereby facilitating the prying unit to move the object when the handle is manipulated.

4 Claims, 4 Drawing Sheets



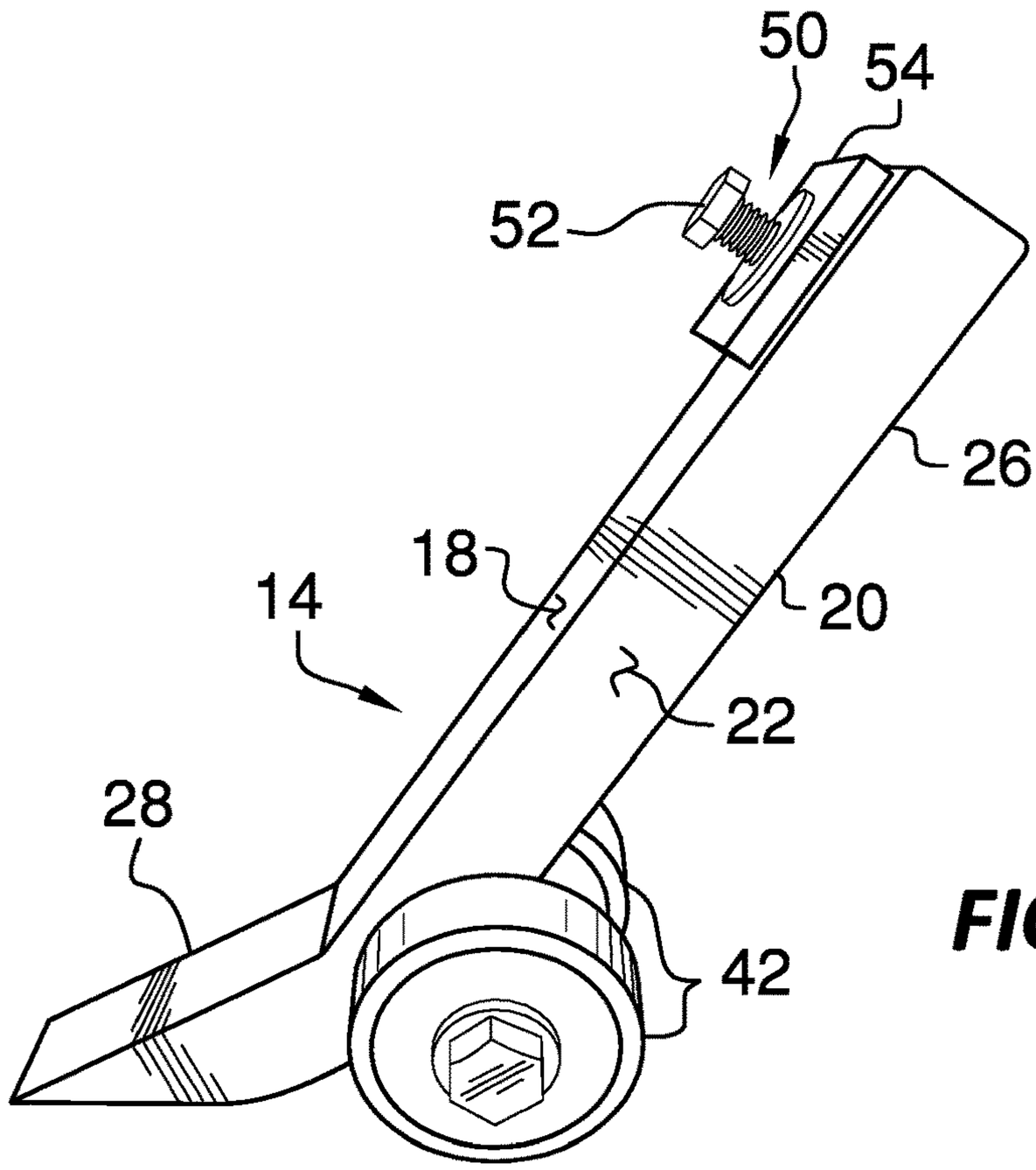


FIG. 1

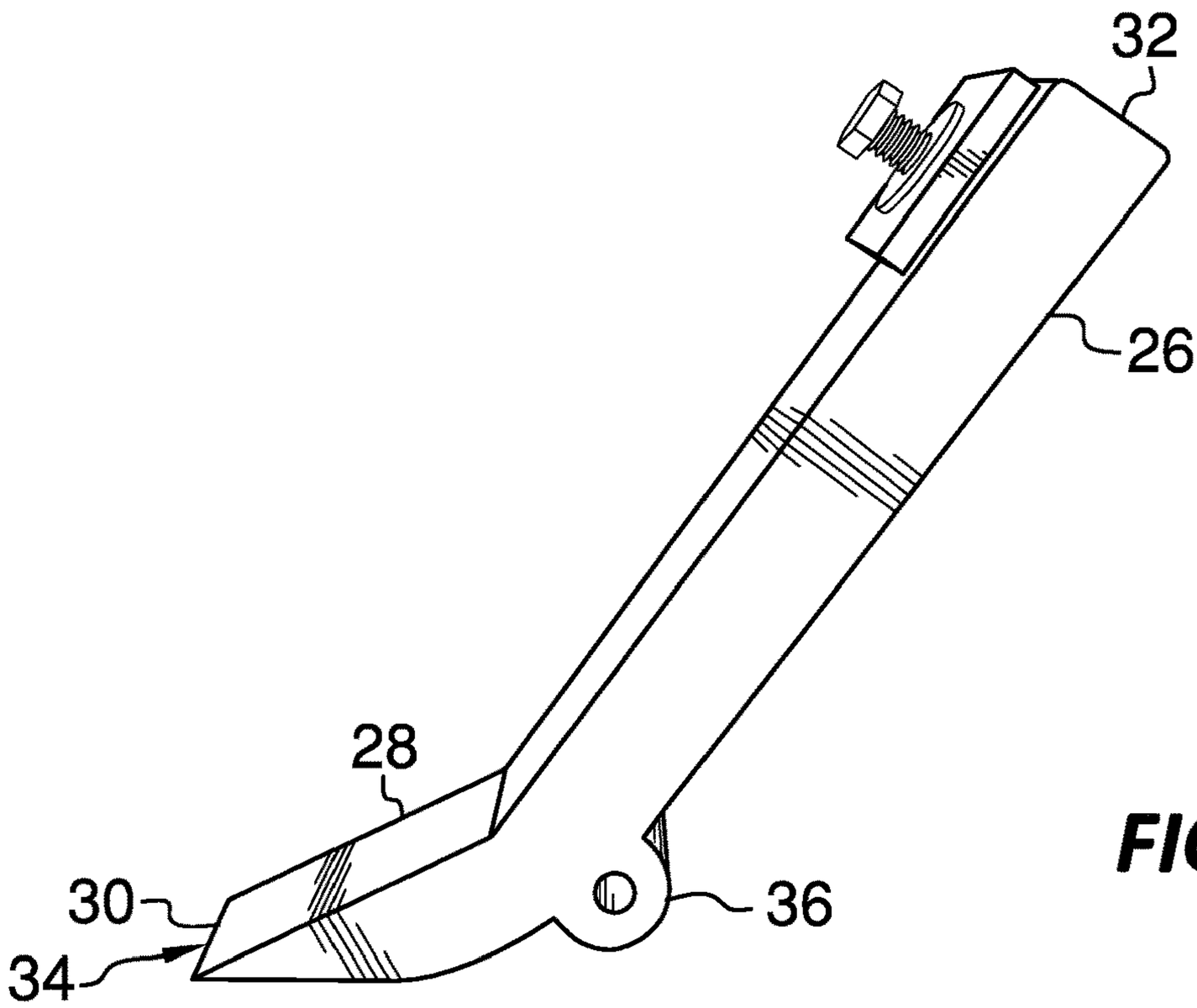


FIG. 2

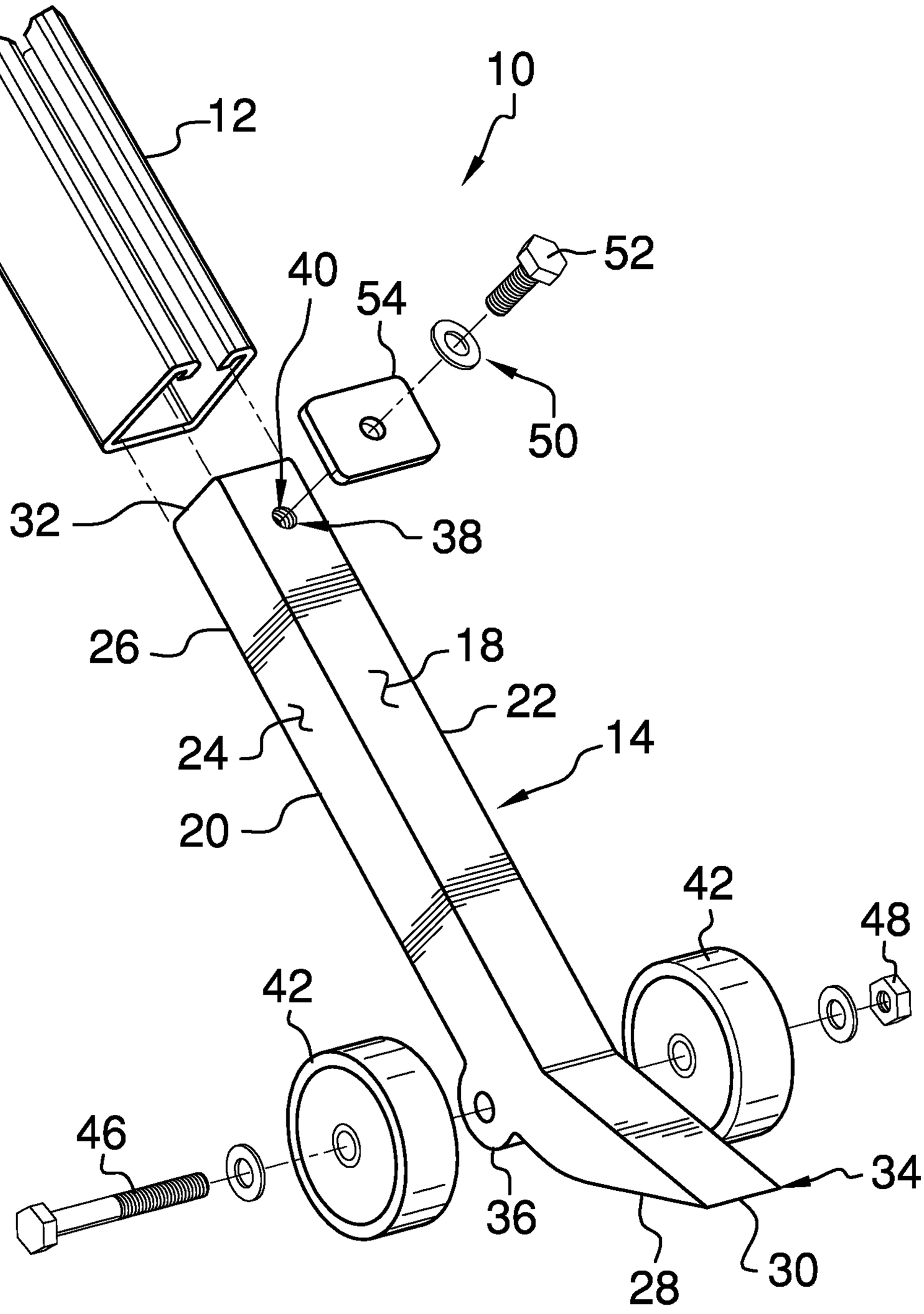


FIG. 3

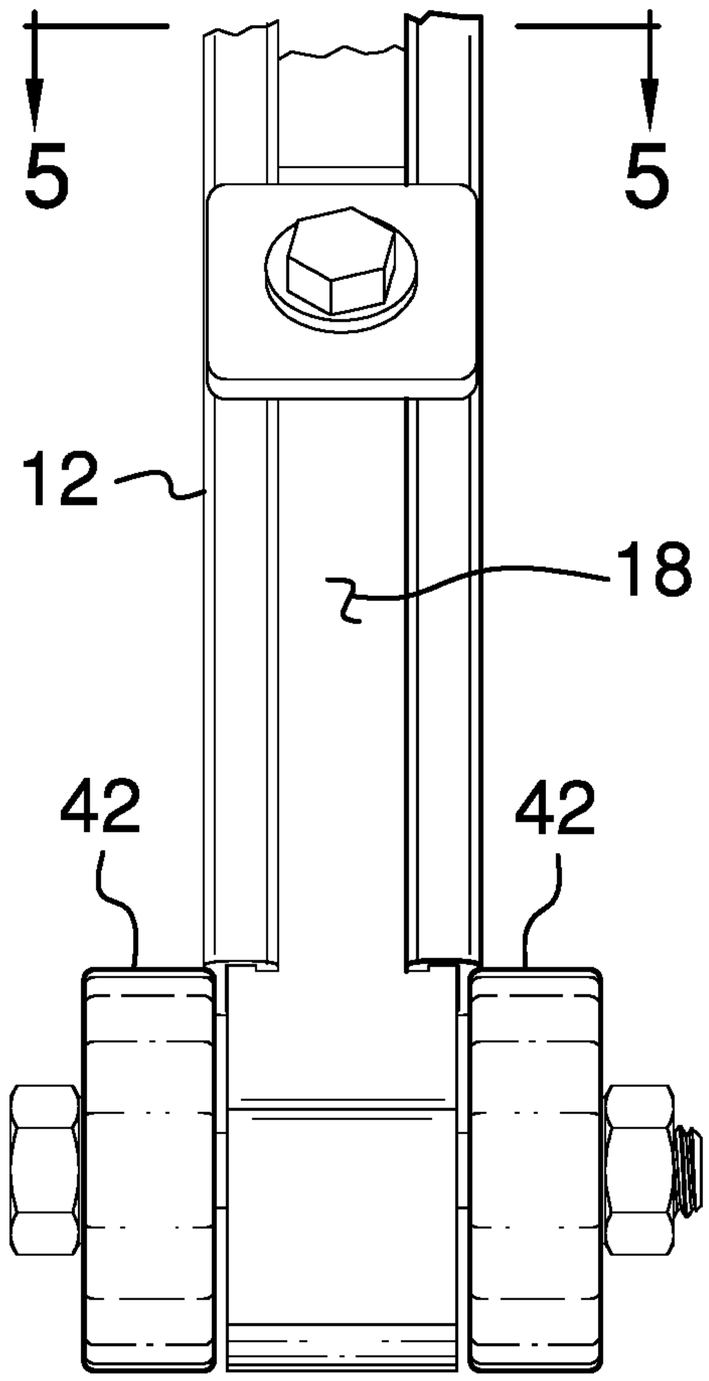


FIG. 4

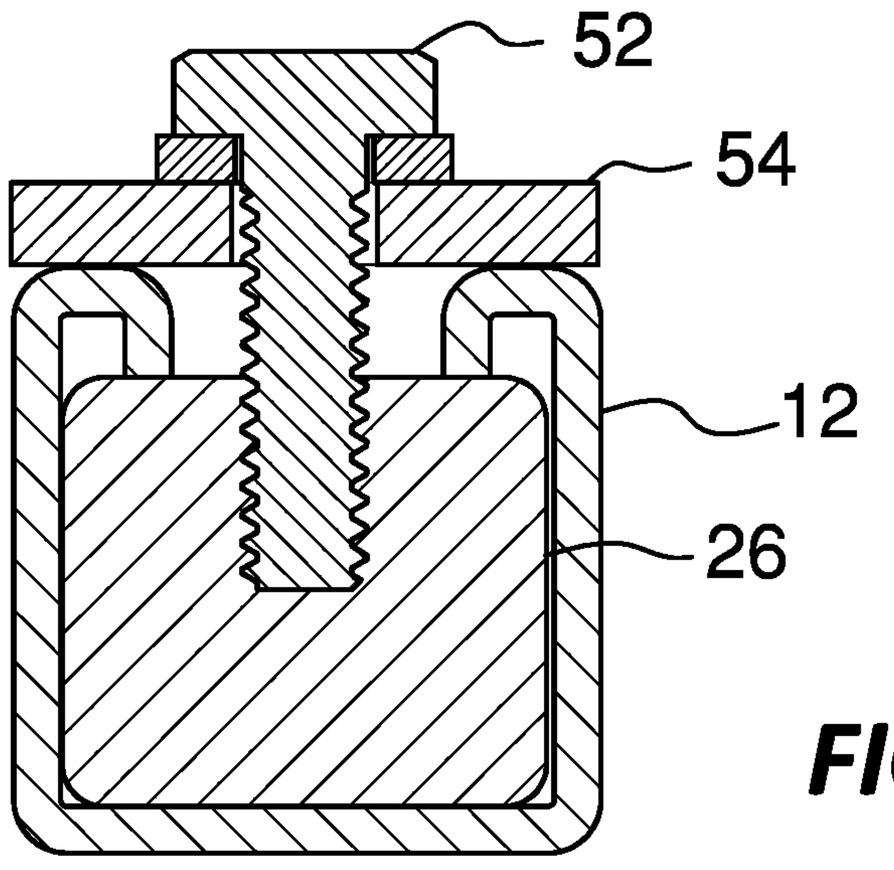


FIG. 5

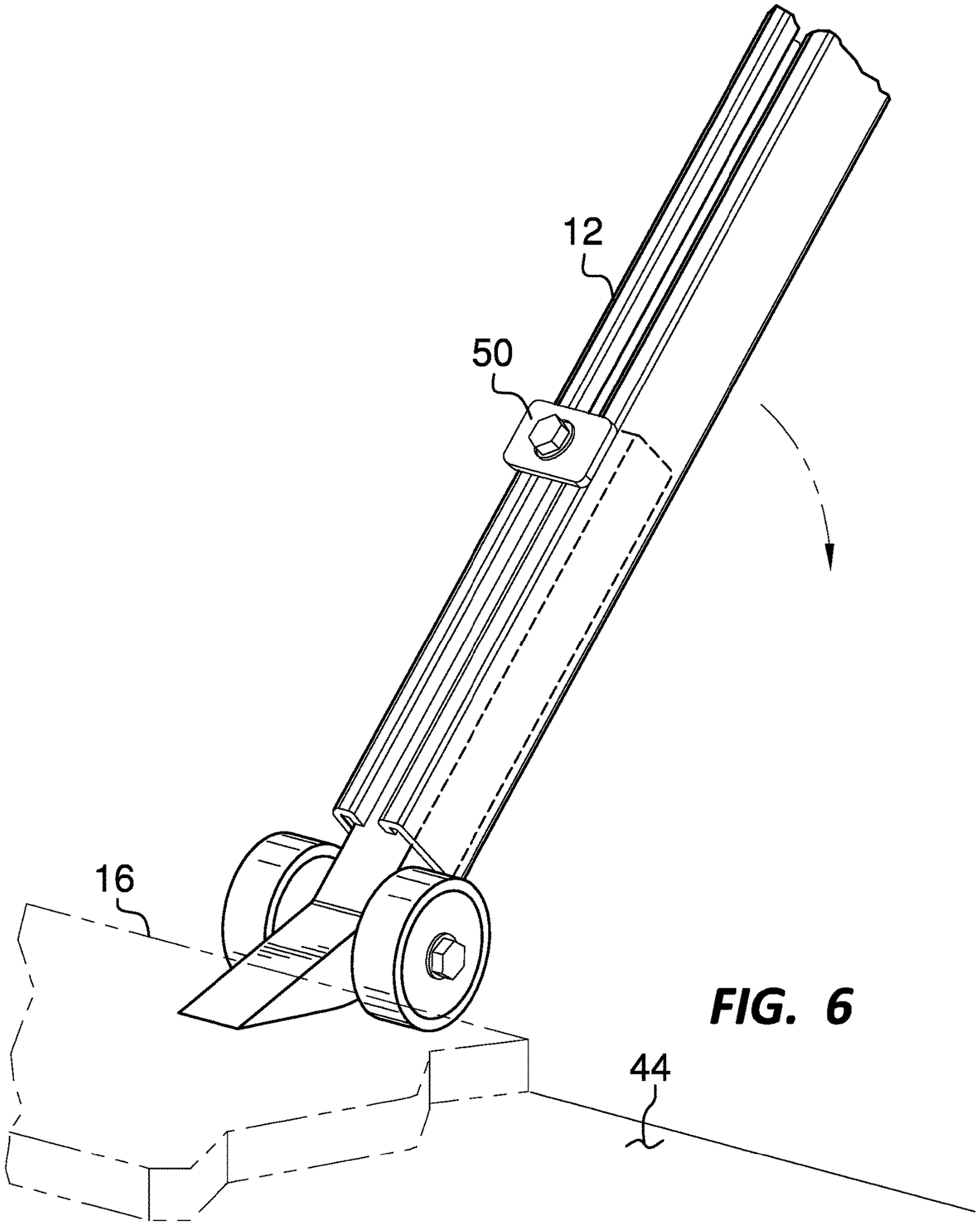


FIG. 6

PRY BAR ASSEMBLY

CROSS-REFERENCE TO RELATED APPLICATIONS

Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not Applicable

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

Not Applicable

INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC OR AS A TEXT FILE VIE THE OFFICE ELECTRONIC FILING SYSTEM

Not Applicable

STATEMENT REGARDING PRIOR DISCLOSURES BY THE INVENTOR OR JOINT INVENTOR

Not Applicable

BACKGROUND OF THE INVENTION

(1) Field of the Invention

(2) Description of Related Art Including Information Disclosed Under 37 CFR 1.97 and 1.98

The disclosure and prior art relates to pry bar devices and more particularly pertains to a new pry bar device that has a removable handle.

BRIEF SUMMARY OF THE INVENTION

An embodiment of the disclosure meets the needs presented above by generally comprising a handle that may be manipulated. A prying unit is provided and the prying unit is removably coupled to the handle. The prying unit may engage an object thereby facilitating the prying unit to move the object when the handle is manipulated.

There has thus been outlined, rather broadly, the more important features of the disclosure in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the disclosure that will be described hereinafter and which will form the subject matter of the claims appended hereto.

The objects of the disclosure, along with the various features of novelty which characterize the disclosure, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING(S)

The disclosure will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

FIG. **1** is a perspective view of a pry bar assembly according to an embodiment of the disclosure.

FIG. **2** is a left side perspective view of an embodiment of the disclosure.

FIG. **3** is an exploded perspective view of an embodiment of the disclosure.

FIG. **4** is a front view of an embodiment of the disclosure.

FIG. **5** is a cross sectional view taken along line **5-5** of FIG. **4** of an embodiment of the disclosure.

FIG. **6** is a perspective in-use view of an embodiment of the disclosure.

DETAILED DESCRIPTION OF THE INVENTION

With reference now to the drawings, and in particular to FIGS. **1** through **6** thereof, a new pry bar device embodying the principles and concepts of an embodiment of the disclosure and generally designated by the reference numeral 10 will be described.

As best illustrated in FIGS. **1** through **6**, the pry bar assembly **10** generally comprises a handle **12** that may be manipulated. The handle **12** is substantially hollow. The handle **12** may comprise a Unistrut framing member manufactured by Atkore Intl. 16100 South Lathrop Ave, Harvey, Ill. 60426. Moreover, the handle **12** may comprise any metallic framing member conventionally employed in commercial and residential construction.

A prying unit **14** is provided and the prying unit **14** is removably coupled to the handle **12**. The prying unit **14** may engage an object **16** thereby facilitating the prying unit **14** to move the object **16** when the handle **12** is manipulated. The object **16** may be any object that is too heavy for a person to manipulate. The prying unit **14** has a front surface **18**, a back surface **20**, a first lateral surface **22** and a second lateral surface **24**.

The prying unit **14** comprises a leg **26** and a foot **28**. The foot **28** has a distal end **30** with respect to the leg **26** and the leg **26** has a distal end **32** with respect to the foot **28**. The leg **26** is selectively inserted into the handle **12**. The prying unit **14** may be selectively carried in a tool pouch or the like when the prying unit **14** is removed from the handle **12**. The front surface **18** corresponding to the foot **28** intersects the back surface **20** corresponding to the foot **28** at the distal end **28** to define a wedge **34**. The wedge **34** may be urged beneath the object **16** to lift the object **16**. The wedge **34** may be urged between a pair of objects **16** to facilitate the pair of objects **16** to be urged apart from one another.

The back surface **20** has a lobe **36** extending outwardly therefrom and the lobe **36** is positioned at an intersection of the leg **26** and the foot **28**. The front surface **18** has a well **38** extending toward the back surface **20**. The well **38** is positioned proximate the distal end **32** of the leg **26**. The well **38** has a bounding surface **40** and the bounding surface **40** is threaded.

A pair of wheels **42** is provided and each of the wheels **42** is rotatably coupled to the lobe **36**. Each of the wheels **42** may roll on a support surface **44** when the wedge **34** is urged beneath the object **16**. Thus, the wheels **42** facilitate the prying unit **14** to lift the object **16** when the handle **12** is manipulated. The wheels **42** are positioned on an associated one of the first lateral surface **22** and the second lateral surface **24**. Each of the wheels **42** may comprise metallic

wheels or the like thereby enhancing load bearing capabilities of the wheels **42**. The support surface **44** may comprise ground.

A bolt **46** and a nut **48** may be provided. The bolt **46** may extend through each of the wheels **42** and the lobe **36**. The nut **48** may engage the bolt **46** when the bolt **46** is extended through wheels **42** and the lobe **36**. Thus, the wheels **42** may be removably retained on the prying unit **14**.

A fastener **50** is provided and the fastener **50** threadably engages the bounding surface **40** of the well **38**. The fastener **50** frictionally engages the handle **12** when the leg **26** is inserted into the handle **12**. Thus, the prying unit **14** is removably retained on the handle **12**. The fastener **50** may include a bolt **52** and a plate **54**. The plate **54** may be positioned to frictionally engage the handle **12** when the prying unit **14** is inserted into the handle **12**. The bolt **52** may extend through the plate **54** and threadably engage the bounding surface **40**. Thus, the plate **54** may be compressed against the handle **12** thereby retaining the prying unit **14** in the handle **12**.

In use, the leg **26** of the prying unit **14** is inserted into the handle **12**. The handle **12** may be cut to a desired length thereby facilitating the prying unit **14** to be manipulated in an otherwise inaccessible location. The wedge **34** is urged between the object **16** and the support surface **44**, and the handle **12** is manipulated to lift the object **16**. The wheels **42** act as a fulcrum when the handle **12** is manipulated to lift the object **16**. Additionally, the wheels facilitate the object **16** may be rolled along the support surface **44** when the object **16** is lifted. The prying unit **14** is stored in a tool bag or the like when the prying unit **14** is not coupled to the handle **12**.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of an embodiment enabled by the disclosure, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by an embodiment of the disclosure.

Therefore, the foregoing is considered as illustrative only of the principles of the disclosure. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the disclosure to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the disclosure. In this patent document, the word "comprising" is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded. A reference to an element by the indefinite article "a" does not exclude the possibility that more than one of the element is present, unless the context clearly requires that there be only one of the elements.

We claim:

1. A pry bar assembly having a removable handle, said assembly comprising:

a handle; and

a prying unit being removably coupled to said handle, said prying unit being configured to engage an object thereby facilitating said prying unit to move the object when said handle is manipulated, wherein said prying unit comprises a front surface, a back surface, a leg and a foot, said foot being an integral extension of said leg, said foot having a distal end with respect to said leg, said leg having a distal end with respect to said foot, said leg being selectively inserted into said handle, said front surface corresponding to said foot intersecting said back surface corresponding to said foot at said distal end of said foot to define a wedge;

a lobe integrally extending outwardly from said back surface of said prying unit, said lobe being in a fixed position at an intersection of said leg and said foot;

a pair of wheels, each of said wheels being rotatably coupled to said prying unit such that each of said wheels is configured to roll on a support surface when said wedge is urged beneath the object thereby facilitating said prying unit to lift the object when said handle is manipulated, said wheels being positioned on an associated one of a first lateral surface of said prying unit and a second lateral surface of said prying unit, each of said wheels being aligned with and extending laterally from said lobe wherein said wheels are rearwardly offset from a longitudinal central axis of said leg and a forward surface of said prying unit is forwardly spaced from an outer circumference of each of said wheels.

2. The assembly according to claim **1**, wherein said front surface having a well extending toward said back surface, said well being positioned proximate said distal end of said leg, said well having a bounding surface, said bounding surface being threaded.

3. The assembly according to claim **2**, further comprising a fastener threadedly engaging said bounding surface of said well, said fastener engaging said handle when said leg is inserted into said handle such that said prying unit is removably retained on said handle.

4. A pry bar assembly having a removable handle, said assembly comprising:

a handle being configured to be manipulated, said handle being substantially hollow; and

a prying unit being removably coupled to said handle, said prying unit being configured to engage an object thereby facilitating said prying unit to move the object when said handle is manipulated, said prying unit having a front surface, a back surface, a first lateral surface and a second lateral surface, said prying unit comprising a leg and a foot, said foot having a distal end with respect to said leg, said leg having a distal end with respect to said foot, said leg being selectively inserted into said handle, said front surface corresponding to said foot intersecting said back surface corresponding to said foot at said distal end to define a wedge, said front surface having a well extending toward said back surface, said well being positioned proximate said distal end of said leg, said well having a bounding surface, said bounding surface being threaded;

a lobe integrally extending outwardly from said back surface of said prying unit, said lobe being in a fixed position at an intersection of said leg and said foot;

a pair of wheels, each of said wheels being rotatably coupled to said prying unit wherein each of said wheels is configured to roll on a support surface when said wedge is urged beneath the object thereby facilitating said prying unit to lift the object when said handle is manipulated, said wheels being positioned on an associated one of said first lateral surface and said second lateral surface, each of said wheels being aligned with and extending laterally from said lobe wherein said wheels are rearwardly offset from a longitudinal central axis of said leg and a forward surface of said prying unit is forwardly spaced from an outer circumference of each of said wheels; and

a fastener threadably engaging said bounding surface of said well, said fastener engaging said handle when said leg is inserted into said handle such that said prying unit is removably retained on said handle.

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